

**RESPONSE UNDER 37 CFR § 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 1791**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|  |   |                                |
|--|---|--------------------------------|
| In re application of                     | : | Attorney Docket No. 2006_0735A |
| Kazuyuki YAMANE et al.                   | : | <b>Confirmation No. 3249</b>   |
| Serial No. 10/579,560                    | : | Group Art Unit 1791            |
| Filed May 16, 2006                       | : | Examiner Michael T. Piery      |
| METHOD OF RECYCLING LAMINATED<br>MOLDING | : | <b>Mail Stop: AF</b>           |

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**REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Responsive to the final Office Action of June 9, 2009, Applicants submit the following remarks in support of the patentability of the presently claimed invention over the disclosures of the references relied upon by the Examiner in rejecting the claims. Further and favorable reconsideration is respectfully requested in view of these remarks.

**Consideration After Final Rejection**

Although this response is presented after final rejection, the Examiner is respectfully requested to consider the remarks, as they clarify that the application is in condition for allowance.

**Rejections Under 35 U.S.C. § 103(a)**

Claims 1-3 and 8-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sirek et al. (U.S. Patent No. 6,649,792) in view of Applicants' (alleged) admitted prior art (pages 1-3 of the specification) further in view of Shiiki et al. (U.S. Patent No. 6,673,403) and Bigg et al. (U.S. Patent Publication No. 2002/0123546).

Claims 4-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sirek et al. in view of Applicants' (alleged) admitted prior art further in view of Shiiki et al. and Bigg et al., as applied above to claim 1, further in view of Roh et al. (U.S. Patent No. 6,031,128).

The above-rejections are based on the same rationale set forth in the previous Office Action, which Applicants traversed, in detail, in the response filed February 12, 2009. The following remarks address the Examiner's positions in the Response to Arguments section of the outstanding Office Action.

(1) On page 5 of the Office Action, the Examiner states, "The claims do not limit the recovery process to recovering the principal resin intact, rather the claims only require recovering the resin."

Applicants respectfully disagree with the Examiner's position. Specifically, contrary to the Examiner's assertion, **Applicants' claims do not "only require recovering the resin", but rather require "recovering the principal resin"**. The word "intact" was used in the previous response to clarify the distinction between Applicants' claimed method and the "chemical recycling of PET" in Sirek, which merely recovers chemically decomposed components of PET.

Applicants respectfully assert that the expression "... recovering the principal resin" in claim 1 literally and naturally means recovering the principal resin **intact**. In other words, the phrase "recovering the principal resin" means recovery without changing the nature of the resin, such as by hydrolysis or chemical decomposition (as in Sirek). The method of Sirek (which involves changing the resin) does not teach the requirements of Applicants' claims, since it does not involve recovery of the principal resin. The term "chemical" in the phrase "chemical recycling of PET" clearly distinguishes the method of the reference from the ordinary meaning of "recycling". Thus, the method of Sirek is clearly distinct from Applicants' claimed method.

(2) On page 6, lines 7 and 8 of the Office Action, the Examiner states, "Bigg further teaches that this degradation begins when water is obtained from the atmosphere and diffuses into the film (paragraph 0020). This degradation is triggered in an environment where the film is exposed to steam (paragraph 0018)."

However, this portion of Bigg et al. refers to an analytical unit step in hydrolytic degradation (e.g., as shown in Fig. 1), and does not refer to sequential operations as recited in

the instant claim 1, i.e., “storing resultant broken pieces in a moisturizing environment ... and then washing the broken pieces with alkaline water to remove the aliphatic polyester resin layer, thereby recovering the principal resin”.

(3) In the subsequent portion on page 6 of the Office Action, the Examiner asserts, “In summation, it is known to form PET bottles containing PGA, it is known that separation of PGA from PET is desirable, and Bigg teaches it is known that PGA degrades upon exposure to steam treatment (which inherently adjust the moisture content).”

Applicants respectfully disagree with the assertion that “it is known that separation of PGA from PET is desirable”, particularly without any support or evidence for the assertion. In paragraph [0068], Bigg et al. states, “Suitable hydrophobic coatings should be compatible with the hydroxycarboxylic acid-containing polymer. Examples of hydrophobic compounds ... include ... polyethylene terephthalate ...” Contrary to the Examiner’s assertion, this passage teaches away from the idea that the separation of PGA from PET is desirable.

(4) Although some of the cited references may teach laminates or coatings made of two resins, none of these references teach or suggest a concept of decomposing one of these two resin layers and recovering the resin of the other layer. Accordingly, the rejection of Applicants’ claims, which include sequential steps for smoothly achieving the above concept, is untenable based upon the cited combination of references.

Thus, it is respectfully requested that the above-rejections be withdrawn.

**Conclusion**

Therefore, in view of the remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this response, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Kazuyuki YAMANE et al.

/Amy E. Schmid/

By 2009.09.09 16:39:06 -04'00'

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September 9, 2009